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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,758	03/09/2004	Gary William Schukar	57630US004	4235
32692	7590	09/28/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			PHAN, THIEM D	
PO BOX 33427			ART UNIT	
ST. PAUL, MN 55133-3427			PAPER NUMBER	

3729

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/797,758

Applicant(s)

SCHUKAR ET AL.

Examiner

Tim Phan

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 August 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 18-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. <u>9/26/06</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____.   |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :5/7/04, 11/22/04, 4/15/05, 8/29/05, 1/13/06, 3/24/06 & 7/14/06 .

## DETAILED ACTION

### *Election/Restrictions*

1. Applicants' election without traverse of Group I, Claims 1-17, filed on 8/27/06, is acknowledged.

The Restriction mailed on 8/01/06 has been carefully reviewed and is held to be proper. Moreover Applicants did not distinctly and specifically point out any error in the Restriction Requirement. Accordingly, Claims 18-35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim.

The Restriction filed on 8/01/06 is hereby **made Final**.

Applicants are required to cancel these nonelected claims (18-35) or take other appropriate action.

An Office Action on the merits of Claims 1-17 now follows.

### *Specifications*

2.
  - On page 1, line 10, delete "pending" and insert: --- US Patent No. 6,740,131 ---;
  - The following title is suggested: "Method for Converting Fuel Cell Membrane Web to

Precisely Positioned Membrane Sheets”.

*Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagate et al (US 5,437,960).

**With regard to claim 1**, Nagate et al teach a process for laminating photosensitive layer, comprising:

- transporting, with use of a movable vacuum or suction belt (Fig. 1, 15), an end portion of the membrane web (Fig. 1, 1 or Fig. 2, 20) from a first location to a second location (Fig. 1, left to right roller of 15);
- securing, with use of respective first and second vacuums of suction belt at the first and second locations and after removal of the movable vacuum, the end portion of the membrane web at the first and second locations;
- cutting the membrane web (Fig. 1, 17) within a gap defined between a single catalyst pattern of the membrane web end portion and an adjacent catalyst pattern to produce a

membrane sheet; and

- positioning the membrane sheet to a desired orientation by mechanical arm (Fig. 1, 19) to facilitate subsequent processing of the membrane sheet.

**With regard to claim 2**, Nagate et al teach that the membrane is less than about two thousandths of an inch in thickness (Col. 7, line 63).

**With regard to claim 3**, Nagate et al teach the further steps of:

- securing, with use of the first vacuum (Fig. 1, 15), the end portion of the membrane web (Fig. 1, 1) at the first location;
- moving the movable vacuum to the first location (Fig. 1, left roller of 15); and
- activating the movable vacuum and removing the first vacuum (Fig. 1, right roller of 15) to facilitate transport of the end portion of the membrane web by use of the movable vacuum.

**With regard to claim 4**, Nagate et al teach the detecting advancement of the single catalyst pattern (Fig. 1, 2; col. 6, lines 36-42) to the second location (Fig. 1, at right roller of 15).

**With regard to claim 6**, Nagate et al teach advancement of the single catalyst pattern (Fig. 1, 2; col. 6, lines 36-42) is detected by detecting the gap defined between the single catalyst pattern and the adjacent catalyst pattern.

**With regard to claim 9**, Nagate et al teach that the positioning of the membrane sheet comprises moving the membrane sheet (Fig. 1, 1) axially with respect to an x-axis and a y-axis, and rotationally about a z-axis by return arm (Fig. 1, 19) to position the membrane sheet to the desired orientation.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 7, 8 and 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagate et al in view of Green et al (US 6,951,596).

**With regard to claims 5, 7, 8, 10 and 11**, Nagate et al teach a process for laminating photosensitive layer, including a sensor to advance the single catalyst pattern (Fig. 1, 2; col. 6, lines 36-42) and a rotational arm (Fig. 1, 19), which reads on applicants' claimed invention.

Green et al teach a technique of making RFID webstock by using a CCD camera to detect and to align (Col. 16, lines 55-67) during to manufacturing process of rolled web with small IC or electronic block (Fig. 8, 520).

It would be obvious to one of ordinary skill in the art at the time the invention was made

to combine the two teachings by applying the optical camera, as taught by Green et al, to the process for laminating photosensitive layer as taught by Nagate et al, in order to incorporate a more accurate system for production and control of orientation and status of the web or membrane sheet.

**With regard to claims 12-17**, Nagate et al teach a process for laminating photosensitive layer, including a sensor to advance the single catalyst pattern (Fig. 1, 2; col. 6, lines 36-42) and a rotational arm (Fig. 1, 19), which reads on applicants' claimed invention.

Green et al teach a technique of making RFID webstock by using a CCD camera to detect and to align (Col. 16, lines 55-67) and an automated station to inspect for quality control (Col. 16, lines 4-7).

It would be obvious to one of ordinary skill in the art at the time the invention was made to combine the two teachings by applying the optical camera and the inspection station, as taught by Green et al, to the process for laminating photosensitive layer as taught by Nagate et al, in order to obtain a higher quality of the web or membrane sheet production.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.




Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 571-272-4568. The examiner can normally be reached on M - F, 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tim Phan  
Examiner  
Art Unit 3729

tp  
September 22, 2006



**A. DEXTER TUGBANG**  
**PRIMARY EXAMINER**